Cardiff and Vale College International Centre for Aerospace Training
ICAT
EASA Part-147 approved centre

Module 17
Propellers

	Level			
	A	B1	B2	B3
17.1 Fundamentals Blade element theory High/low blade angle, reverse angle, angle of attack, rotational speed; Propeller slip; Aerodynamic, centrifugal, and thrust forces; Torque; Relative airflow on blade angle of attack; Vibration and resonance.	1	2	-	2
17.2 Propeller Construction Construction methods and materials used in wooden, composite and metal propellers; Blade station, blade face, blade shank, blade back and hub assembly; Fixed pitch, controllable pitch, constant speeding propeller; Propeller/spinner installation.	1	2	-	2
17.3 Propeller Pitch Control Speed control and pitch change methods, mechanical and electrical/electronic; Feathering and reverse pitch; Overspeed protection.	1	2	-	2
17.4 Propeller Synchronising Synchronising and synchrophasing equipment.	-	2	-	2
17.5 Propeller Ice Protection Fluid and electrical de-icing equipment.	1	2	-	2
17.6 Propeller Maintenance Static and dynamic balancing; Blade tracking; Assessment of blade damage, erosion, corrosion, impact damage, delamination; Propeller treatment/repair schemes; Propeller engine running.	1	3	-	2

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17.7 Propeller Storage and Preservation Propeller preservation and depreservation.	1	2	-	2